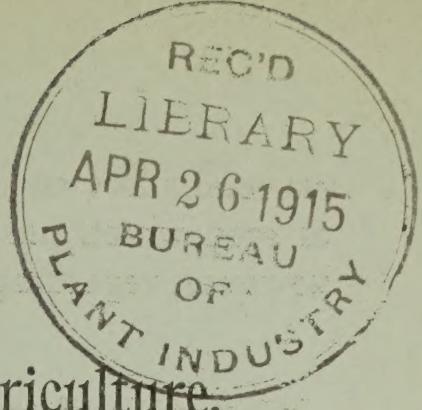


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# United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

Forage-Crop Investigations,

WASHINGTON, D. C.

## RHODES GRASS (*Chloris gayana*).

*Object of the distribution.*—The distribution of new and rare seeds has for its object the dissemination of new and rare crops, improved strains of staple crops, and high-grade seed of crops new to sections where the data of the department indicate such crops to be of considerable promise. Each package contains a sufficient quantity for a preliminary trial, and where it is at all practicable the recipient is urged to use the seed for the production of stocks for future plantings. It is believed that if this practice is followed consistently it will result in a material improvement in the crops of the country. Please make a full report on the inclosed blank regarding the results you obtain with the seed.

### DESCRIPTION.

Rhodes grass is a perennial grass, native to South Africa, first cultivated by Cecil Rhodes in South Africa about 1895. The grass is fine stemmed, very leafy, and grows to an average height of about 3 feet. The flowering head consists of 10 to 15 long, spreading spikes in a cluster, and seed is produced in abundance. The grass also spreads by means of running branches 2 to 6 feet long, which root and produce a plant at every node. Notwithstanding this method of reproduction, Rhodes grass has at no place in the United States become troublesome as a weed. Rhodes grass is completely destroyed when the temperature in winter falls to about 18° F., and as a perennial grass is therefore adapted only to southern Texas, Florida, and a narrow strip along the Gulf coast. Farther north it must be treated as an annual. At Washington, D. C., it will produce but a single crop of hay in a season. Farther south two cuttings may be obtained under favorable conditions. On fertile land in central and southern Florida, however, as many as six to seven cuttings are secured in a single season. A good stand of Rhodes grass will yield from a ton and a quarter to a ton and a half of hay to a cutting. This hay is of very fine quality and is eagerly eaten by horses and cows. In Florida it is already being grown on a commercial scale.

### SEED.

Seed of Rhodes grass is at present all imported from Australia, where the grass is quite extensively grown. There seems to be no reason, however, why seed should not be grown in the United States,

especially in view of the increasing demand and the excellent quality of seed which has been grown in test plats. No data are at hand, however, regarding the seed yields that may be obtained per acre.

#### CULTURE.

Under Florida conditions early spring seeding will apparently give the best results. The seed bed should be prepared by thorough plowing, after which the subsurface should be well settled by the use of a roller or similar implement. Just before the seed is sown the surface layer of soil should be loosened and well fined. This can be done by light disking and harrowing when the ground has become somewhat packed when it rains, but if the surface has not packed or crusted, harrowing is sufficient. On account of the comparatively low vitality of the seed 10 pounds per acre are necessary, and, since it is somewhat chaffy in nature, broadcasting by hand is generally more satisfactory than by the use of mechanical seeders. After sowing, the seed should be covered lightly by a weeder if available or a spike-tooth harrow. If the soil is not reasonably fertile, the addition of a fertilizer high in available nitrogen is frequently profitable. The fertilizer should be applied preferably after the grass begins growth. If applied before this time, its effect is dissipated to a considerable extent.

#### RECOMMENDATION.

At the present time Rhodes grass is definitely recommended only for Florida, although fairly satisfactory results have been obtained in southern Texas and along the Gulf coast. Farther north it is well worth experimenting with as an annual, as in many trial experiments it has given larger yields of better hay than most other grasses. It is believed that its culture as an annual in portions of the cotton region where it will not survive the winter may be made profitable if care be taken to save the seed which shatters out of the haymow. By this method the seed for sowing each year will be obtained practically free of cost.

Rhodes grass is primarily a hay grass. Its ability to withstand pasturing remains to be determined.

C. V. PIPER,  
*Agrostologist in Charge.*

FEBRUARY 1, 1915.